Aether Advisors LLC

INQUIRY INTO LOCAL DISTRIBUTION COMPANIES' NATURAL GAS HEDGING PRACTICES AND TRANSACTION REPORTING, Docket UG-132019

In Connection with a Workshop to be held Thursday January 23, 2014

Written Comments Submitted by Aether Advisors LLC To the Washington Utilities and Transportation Commission

January 13, 2014

Introduction

Aether Advisors LLC ("Aether") is submitting comments to the Washington Utilities and Transportation Commission as it gathers information and reviews existing literature concerning natural gas hedging and hedging practices. As a consultant that provides hedging advisory services to utilities, and has worked for or is working for interested parties in this proceeding, Aether Advisors LLC is providing its perspective to the questions posed by the Commission.

Background

Aether's Managing Partner, Julia M. Ryan, provides advisory services to clients in the areas of hedging and risk management. Most of her clients are utility clients, and she conducts audits of energy supply practices, reviews hedging programs, and provides recommendations on how companies can adapt and improve their risk management programs. She has authored several articles on hedging and risk management, including "Hedging Under Scrutiny" Public Utilities Fortnightly, February 2012, and "The Art and Science of Risk Management Reporting", Wiley Periodicals, October 2009. Ms. Ryan's biography is included in the appendix. Ms. Ryan's written comments below relate to questions of hedging activity and hedging program design.

Written Comments

1) **Hedging Activities**
    a. **What is the purpose of hedging?**

i. **Reduction in price volatility allowing greater cash-flow certainty**
ii. **Protection against substantial price hikes?**
iii. **Stabilization of customer rates, especially during the winter months**
iv. **Other reasons**

Aether's Comments:

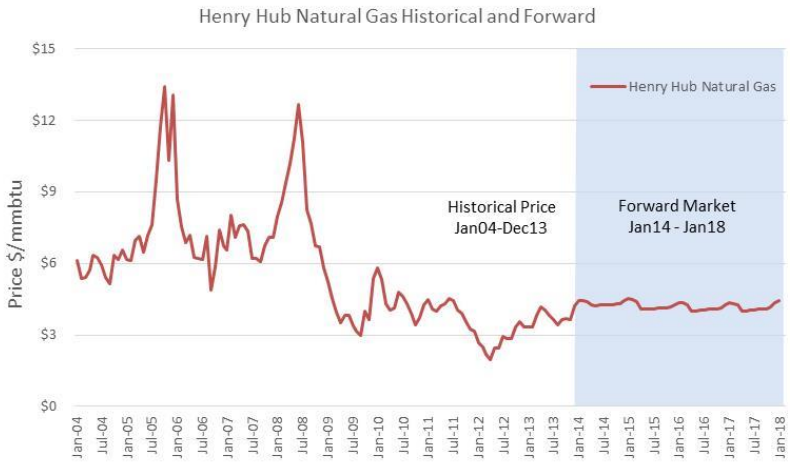
A gas utility has a natural "short" gas position and procures supply to insure it can reliably meet customers' needs. A utility can minimize the risks of rising prices increasing natural gas rates for customers through hedging. When a gas utility locks into a natural gas price to acquire price protection, it is mitigating its short price position. The act of purchasing is a deliberate action to manage costs.

Hedging is not speculative and does not add risk exposure to a gas supply portfolio. Instead, hedging is the act of reducing risk exposure in a portfolio, and is not related to profit and gain or trying to "beat the market". The act of locking into a price means the utility has accepted that price for its customers and is willing to forego future opportunity in exchange for protecting against prices moving disadvantageously.

In recent years, some utility commissions and utility boards have asked, "why hedge?" given the downward trend in market prices. Aether advises the reasons to hedge are:

- The decision not to hedge means the utility is speculating with its net short position.
- Customers don't like rate surprises and want to be able to budget for energy costs.
- Utilities face rising costs in many areas, so why not manage costs that can be managed?
- There has been a long trend of declining energy prices since 2009 which began to turn around in 2013.

The graph below is the historical monthly Henry Hub Natural Gas for January 2004 through December 2013 reported by EIA. January 2014 through January 2018 prices are futures price as of 12/30/13:



Some commissions have told utilities to reduce their hedging programs because the "cost" of the program in recent years was excessive. But this determination has been made with little consideration of the risk to customers. Reduced hedging has less "cost" in declining markets, but the choice to scale back hedging is making a bet on the direction of prices. Customers are at risk if the 'guess' that prices would keep falling is not correct.

There can be more than one purpose for hedging. Hedging can be designed to address all three of the risks listed above (i-iii) but the utility has to determine what its primary objective is, for the hedging program design should be driven by what risk the utility wants to mitigate within its supply portfolio. Typically utilities design their hedging programs to meet one of the following objectives:

- Fix (lock in) customer rates
- Keep rates within a band
- Protect against price spikes

The three objectives above are separate mitigation strategies to address the risks of rising market prices, and there are subtle differences between them that drive different hedging strategies and hedging program design. For example, if the objective were to fix customer rates, the utility would lock in the gas supply costs for customers by hedging a very high percentage of the portfolio, with fixed price contracts. If a utility were comfortable with a wider band for rates (implying a higher risk tolerance), the utility could employ a lower hedging percentage and

hedge with fixed price. Alternatively, it might use a collar to put a band around gas costs. To protect against price spikes, a utility could purchase out of the money call options.

b) Who should be the beneficiaries of the hedging?

Aether Response:
Utilities are hedging to protect customers against rising wholesale natural gas prices, and as a result, customers are the primary beneficiaries of hedging. Typically, the hedging cost is a pass-through cost from which the utility gains nothing, and the cost is recovered through a gas supply cost recovery such as a PGA.

c) Hedges are commonly negotiated for a fixed period of time; the time period can span from months to years.

i. Is there a sound reason to limit the time horizon that companies can contract for a hedge?

ii. If so, what should be the maximum time horizon? What are the advantages, if any, of hedging over a multi-year period?

Aether Response:
A utility has two 'levers' to manage the scale of hedging in the hedging program: the hedging program time-frame and the percent of the portfolio that will be hedged. It is common utility practice to layer in hedges over a period of time, to hedge against price spikes and to smooth rate volatility for customers.

Customers care not only about a short-term rate increase, but also the cumulative rate effect over a period of several years (medium-term time frame). Therefore it is important utilities have an integrated hedging program over a multiple-year time horizon. Hedging over a multiple year period ("medium-term" hedging) is beneficial for customers, for it provides rate continuity from one rate year to another.

In addition to having a medium-term hedging program, when forward natural gas prices are low and the premium for future years' supply relative to current year costs is not large, utilities should consider long-term hedging. Long-term hedging

can take the form of forward fixed price contracts, long-term derivatives or gas production (such as a gas pre-pay contract, a volumetric production payment or a reserves acquisition). When circumstances are attractive, long-term hedging provides long-term rate stability and reliable supply for customers.

d) Companies normally hedge to set a "target" percentage of their expected load allowing the remainder of the unhedged load to be acquired on the post market.

i. **Is there a need for the Commission to limit the percent of load hedged and, if so, what should be the maximum percent hedged?**
ii. **What are some of the factors affecting the amount of hedging that a utility should do?**
iii. **When discussing target percentages, should the Commission distinguish between physical and financial hedging?**

Aether Response:

As opposed to focusing on the percentage hedged, the Commission might find it more effective to review the utility's risk tolerance. This would be the strategic underpinning to the utility's hedging program.

Prior to setting volumetric hedging targets, a utility should establish a risk tolerance. A risk tolerance articulates the type and size of risks that will be assumed by an organization. A gas utility hedging on behalf of customers should establish a Customer Risk Tolerance that quantifies how much customer rate risk will be acceptable. A Customer Risk Tolerance would define the amount of risk by a % rate increase tolerance.

Translating market price risk into potential rate impact will help customers and stakeholders better understand the hedging objectives. For example, if a utility determines it doesn't want to see PGA rates rising more than 10% in the next gas year, it would have a larger percentage of hedging than a utility that had set the bar at no greater than a 20% rate increase. A utility could use scenario analysis to understand what types of events could trigger the rate increase.

It is important to understand that a utility might have some limitations on what it can hedge and how far forward in time. It may have limited financial capacity to

hedge, if it has a weak credit rating and/or has limited bank lines and working capital. All utilities will find they can hedge less in volatile markets than in less volatile markets. And there may be market liquidity and counterparty credit risks that limit what utilities can hedge.

In terms of selecting physical versus financial hedging, that will depend upon market conditions, derivatives regulation, administrative costs, counterparty arrangements, and the physical location of the utility's pipeline receipt points. Because these conditions are not the same for each utility, the commission should delegate the decision of using physical or financial instruments to the utility. For example, some utilities may procure supply at a market location where the sellers prefer to sell at an index-based price and not at a fixed price. So the utility might find it easier to hedge using financial derivatives. Another utility may decide that it doesn't want to deal with new CFTC regulation relating to financial derivatives, and prefer to transact in physical markets where it may have counterparties willing to transact at a fixed price.

e) Should the Commission consider providing an incentive mechanism allowing for sharing of gains as well as losses associated with a company's hedging practices?

i. What should be the benchmark?

ii. What are the challenges in developing an incentive mechanism?

Aether Response

Aether would be concerned that a forced incentive mechanism could cause the utilities to hedge for their own interests as opposed to hedging for the customers' interests. Since customers care more about costs rising than falling, they would be more likely to support locking in costs than not. This is because the customer is locking in cost for a tangible asset, the gas delivered to the meter. As a result, the customer "wins" if prices go up and is probably indifferent if prices go down.

But the risk tolerance may be different for the utility, if the utility wins when prices rise and loses when prices fall. For example, if the incentive mechanism had a penalty if prices went down and a reward if prices went up, the utility might only hedge if it thought prices were <u>definitively</u> going up. But customers, given the same market conditions would be more inclined for the utility to hedge, on the

possibility that prices would be going up. As a result, there could be misalignment of interests with a forced incentive mechanism.

However, it might be a good idea to allow a utility to propose an incentive mechanism, which the Commission could approve on a case by case basis it if it felt there were aligned interests for customers and the utility.

e) Is it feasible to develop a financial model that would provide a benchmark the Commission could use as a "safe harbor" when evaluating a company's hedging performance?

Aether Response
With respect to determining hedging program effectiveness, there are several techniques.

First, Aether cautions against using spot price versus hedged price as a means to measure hedging performance. The analysis is flawed for organizations that are hedging to a customer rate risk tolerance. Comparing hedged price to spot price is not a relevant or fair analysis when *not hedging* is an unacceptable path given the organization's hedging objective.

There are more appropriate techniques to measure hedging program effectiveness that range from hedging execution to risk mitigation. The first is to examine the hedging execution relative to the market prices at the time, which is appropriate for examining the utility's ability to execute hedges at close to the forward market.

A second approach is to review what was known and measureable at the time the hedging plan was executed, examining the fundamental market analysis from that point in time. By tracking this, it is possible to see how the utility adjusted to new market information. An organization's ability to respond to market information speaks to the strength of its hedging program. The commission staff could review the hedging documentation contemporaneous with hedging execution. The objective is to insure the utility's hedging activity was consistent with its risk policy as well as then-available information about market supply/demand factors.

A third approach is to assess how much risk exposure was mitigated through price risk management. This could be done by modeling the portfolio without hedges, to see the full range in potential power and fuel costs, and then modeling the portfolio with hedges to review the differences. When a commodity portfolio with hedging is compared to one without hedging, it is possible to see the effect of the price risk management strategy. A scenario analysis will demonstrate the reduction in the range of potential gas commodity cost, both in terms of reducing the risk exposure to rising prices as well as the larger opportunity cost associated with hedging.

Appendix

Julia M. Ryan
Managing Partner

Ms. Ryan has over 23 years of experience in the energy industry in the areas of energy supply, risk management, commodities trading, and strategic planning. She has been consulting since 2006, and is Managing Partner of Aether Advisors LLC ("Aether). Ms. Ryan has provided advisory services to utility, trading and marketing, private equity, merchant power, and retail energy marketing companies.

She brings direct experience in leading risk management, strategic planning, corporate budgeting, internal audit, energy supply, and marketing and trading operations through officer positions at Puget Sound Energy, Merchant Energy Group of the Americas and Louis Dreyfus Energy Corp. She led energy portfolio management, and later, risk management and strategic planning as a vice president at Puget Sound Energy from 2001-2006. At this time she was also a board member of the Northwest Gas Association. She was Managing Director at Merchant Energy Group and started the risk management function and later ran North American marketing and origination from 1997 to 2001. She was Senior Vice President at Duke-Louis Dreyfus, leading the natural gas trading desk from 1989 to 1995 and then commercial and industrial marketing strategic initiatives from 1995 to 1996.

Ms. Ryan is a CFTC registered commodity trading advisor ("CTA"). She has been an appointed member of the Seattle City Light Review Panel, which advises the utility's management team, the mayor and the city council on strategic planning, budgeting, and rate design issues for the utility, since 2010.

In the course of her work, Ms. Ryan has had many opportunities to present to executive risk committees, boards of directors, commission staff, commissioners and elected officials, utility customers and stakeholders. She has spoken at numerous industry conferences on the topics of risk management, and has been a guest instructor at Willamette University's Atkinson School of Management since 2006. Ms. Ryan graduated Cum Laude, and was elected to Phi Beta Kappa, from Smith College in Massachusetts.

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